

REMARKS

Allowable Subject Matter:

Applicant thanks the Examiner for indicating that although claims 3 and 5 have been objected to, these claims would be allowable if written in independent form.

Claim Rejections:

Claims 1-8 are all of the claims pending in the present application and currently claims 1-2, 4, and 6-8 stand rejected.

35 U.S.C. § 102(b) Rejection - Claims 1 and 2:

Claims 1 and 2 continue to stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,665,354 to Sada et al. In view of the following discussion, Applicant respectfully traverses the above rejection.

As indicated previously, Figure 1, of Sada, discloses a battery voltage regulator system for a vehicle charging system with a voltage control circuit. Specifically, Sada teaches a system containing a battery 3 connected in series with a key switch 4 and a charge lamp 5. “The output of the alternator 2 is also connected to [a terminal] of the battery 3 directly connected to [an] external T₃.³” Sada, col. 2, lines 52-54. The Examiner asserts that the resistor 141, shown in Figure 1, “limits current flowing through [the] light emitting element” and cites col. 6, lines 10-15 in support of this proposition. The Examiner also notes that the resistor 141 is positioned between the terminal T₃ (i.e. the lamp 5) and a transistor 140. *See* Figure 1.

In responding to Applicant’s arguments, the Examiner has continued to assert that the resistor 141 and transistor 140, of Sada (shown in Figure 1) sufficiently disclose the present invention. Namely, the examiner states that:

Sada et al. discloses specifically having a resistor 141, which is between a transistor 140 and the input terminal T3. Claim 1 does not provide a more specific use for the transistor within the voltage control apparatus. Sada et al uses the transistor 140, which is used to be turn on/off, thus affecting the switch (column 4, lines 46-49). Moreover, resistor 141 is used as a voltage divider (column 4, lines 31-33), which consumes current and it is also disclosed explicitly that resistor 141 absorbs currents (column 6, lines 21-23). (See page 6 of the Office Action).

Applicant respectfully disagrees with the Examiner.

First, Applicant finds the Examiner's statement that "Claim 1 does not provide a more specific use for the transistor within the voltage control apparatus" curious. Namely, Applicant submits that the Examiner's statement is incorrect, as claim 1 sets forth a "more specific use for the transistor." Specifically, claim 1 indicates that the transistor is "for lighting [the] light emitting element." *See* claim 1.

Additionally, as Applicant has previously noted, in Sada, there are two transistors (i.e. transistors 122 and 140) which are serially connected to the input terminal T₃. *See e.g.* Figure 1. Of these transistors, it is the transistor 122 which is used to turn on/off the light of the light emitting element (i.e. lamp 5), not the transistor 140 asserted by the Examiner. *See* Sada, col. 2, line 56 (indicating that the circuit 12 is the charge lamp drive circuit), *see also* col. 3, lines 30 to 40 (which is an expression of the structure of the charge lamp drive circuit, structured so that the transistor 122 is used to turn on/off the light 5). Comparatively, the transistor 140 is used to compensate for leakage current that flows in the input terminal T₃. *See* Sada, col. 2, line 60 (indicating that the circuit 14 is the malfunction circuit), and col. 3, line 67-col. 4, line 8 (which is an expression of the leakage current compensating circuit, where the transistor 140 is used for the leakage current compensating circuit), *see also* Figure 1.

In view of the foregoing discussion, it is apparent that “the resistor being disposed between the transistor 140 and input terminal T₃” (referenced by the Examiner in the Office Action, is not disposed between the transistor for lighting the lamp 5 in the lamp 5. In fact, the resistor cited by the Examiner in rejecting the present claims is used in the leakage current compensating circuit. *See* discussion above.

Stated differently, the resistor for limiting the flow of current to the lamp 5 is not disposed between the transistor 122 and the input terminal, but between a current leakage transistor 140 and the input terminal. Thus, Sada does not disclose each and every feature of the claimed invention. Namely, there is no disclosure of “a resistor for limiting a current flowing through [a] light emitting element, disposed between a transistor within said voltage control apparatus for lighting [the] light emitting element, and said input terminal.” *See* claim 1. The transistor 140 is not used for lighting the lamp 5.

With regard to claim 2, the Examiner has provided no specific discussion regarding this claim. However, Applicant disagrees that the lamp 5 is lighted by a current which is inputted into the terminal T₃ for starting an operation of the voltage control apparatus, as required by claim 2.

In view of the foregoing discussion, Applicant submits that Sada fails to disclose each and every feature of the claimed invention, as set forth in claims 1 and 2. Therefore, Sada fails to anticipate the claimed invention as required under the provisions of 35 U.S.C. § 102(b).

Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 102(b) rejection of these claims.

35 U.S.C. § 103(a) Rejection - Claims 6 and 7:

Claims 6 and 7 continue to stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sada in view of Beyn. However, as claims 6 and 7 depend on claims 1 and 2, respectively, and because Beyn fails to cure the deficient teachings of Sada, with respect to these claims, Applicant submits that these claims are also allowable, at least by reason of their dependence.

35 U.S.C. § 103(a) Rejection - Claim 4:

Claim 4 continues to stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sada in view of U.S. Patent No. 4,642,548 to Mashino. In view of the following discussion, Applicant respectfully disagrees.

As an initial matter, Applicant notes that the Examiner continues to admit that Sada does not teach or suggest having a voltage detection circuit for detecting the voltage at the input terminal T₃, as required by claim 4, but the Examiner continues to rely on Mashino to teach this aspect of the present invention. Specifically, the Examiner simply asserts that it would have been obvious to combine the references because each are directed to controlling alternators, specifically for vehicles. As an initial matter, Applicant submits that this is insufficient to establish a motivation to combine the references. Namely, the mere fact that references can be combined is insufficient to establish a motivation to combine the references.

Turning now to Mashino, Mashino discloses a control apparatus for controlling the shut-off or interruption of an excitation current supplied to a field winding. The system includes both

a power transistor and a voltage detection circuit, where the detection circuit controls the on-off of the power transistor depending on the voltage generated by a charging generator. *See Abstract and Figure 1.* In view of this disclosure, Applicant again submits Mashino has little or no relevance to claim 4, and one of ordinary skill in the art would not have been motivated to combine the teachings of Mashino with Sada.

However, as Applicant has previously noted, the voltage detection circuit in Mashino only monitors the terminal L, which is connected to the diodes 6. There is no voltage detection circuit monitoring the voltage at the terminal IG, which corresponds to an “input terminal,” of the present invention. Thus, there is no disclosure with regard to the voltage detection circuit of claim 4.

Specifically, even if it were assumed that it would have been obvious to combine the references (which is not Applicant’s position), the resultant combination would fail to disclose, teach or suggest a “circuit for detecting the voltage of [the] input terminal and starting [a] voltage control apparatus, [the] circuit being arranged to be shutdown after [the] vehicle generator starts electric power generation operation.” *See claim 4.* Neither of the references teaches a circuit to monitor a voltage of an input terminal for inputting a voltage of a battery through an ignition switch and a light emitting element connected in series with the ignition switch. *See claim 4.*

In view of the foregoing, Applicant submits that neither of the Sada or Mashino references, taken individually or in combination, teach or suggest each and every feature of the present invention, as set forth in claim 4. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 4, as required under the provisions of 35 U.S.C. §

RESPONSE UNDER 37 C.F.R. §1.116
Application Number 09/688,350

Our Ref: Q61020
Art Unit: 2834

103(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of this claim.

35 U.S.C. § 103(a) Rejection - Claim 8:

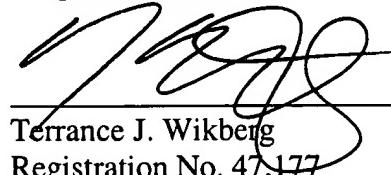
Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Sada in view of Mashino and in further view of Beyn. However, as claim 8 depends on claim 4, and because Beyn fails to cure the deficient teachings of Sada and Mashino, with respect to claim 4, Applicant hereby submits that claim 8 is also allowable, at least by reason of its dependence.

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Terrance J. Wikberg
Registration No. 47,177

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: July 16, 2004